

MONTANA EMERGENCY MEDICAL SERVICES FOR CHILDREN/CHILD READY MT



CONNECTION NEWSLETTER

VOLUME 3, ISSUE 9, SEPTEMBER 2016

SEPTEMBER ISSUE:



The SEPTEMBER issue has pediatric disaster resources, educational opportunities and articles related to pediatric care-TBI MONTH; NEWBORN SCREENINGS; Neonatal Abstinence Syndrome & MORE! TRIVIA- answer & win Pediatric Blood pressure cuffs (infant & child)

NATIONAL TRAUMATIC BRAIN INJURY AWARENESS MONTH

1280 S. 3rd Street, Ste. 4, Missoula, MT 59801; 1-800-241-6442 (In-state)
406-541-6442; www.biamt.org



Every year, almost half a million children visit an emergency department due to a traumatic brain injury (TBI). Every day, children experience the pain and emotional turmoil a devastating injury such as this creates. With awareness and prevention, these children can live a normal, healthy life and help others stay safe too. As nurses, physicians, and others working in a health related field, it is imperative to educate your patients, their families, and schools on the impact of brain injury.

According to the Centers for Disease Control and Prevention (CDC), the two age groups that are at the most risk for TBI are ages 0-4 and 15-19. In particular, falls cause more than half of all TBIs among children. Sports-related TBIs, or concussions, account for 24%, which is the result of being hit by another person or object. Motor vehicles and assaults also cause traumatic brain injury, such as motor vehicle crashes, fighting, Shaken Baby Syndrome, and abuse. With instruction and cognizance, many of these situations can be avoided.

To ensure that children are safe, parent supervision is key! Here are a few **general tips** you can pass on to families regarding their child's indoor and outdoor play:

- Be sure that all play areas are well-maintained and free of any dangers. On playgrounds, check that the surfaces are made of shock-absorbing materials such as hardwood mulch or sand.
- Always make sure that your child is wearing a helmet when riding a bicycle, scooter, or skateboard—even on short distances.
- During car rides, explain the importance of wearing a seat belt. Montana state law requires, "If a child under 6 years of age and weighing less than 60 pounds is a passenger in a motor vehicle, that motor vehicle must be equipped with one child safety restraint...It must be appropriate for the height and weight of the child as indicated by manufacturer standards."

Sports are a great activity for children to learn various responsibilities and create lasting friendships. Along with this, however, we all must ensure their safety in the process. Suggest that your patient's families work

with their coaches and other parents to lessen the risk of sports-related TBIs. Stress that they make sure their child's sporting equipment fits properly and is also in good condition. Also, recommend that they remind their child to practice good sportsmanship and play by the rules.

If a child does sustain a concussion, give a thorough evaluation and then practice the **HEADS UP Return to Play**:

1. **Baseline:** Athlete needs to have completed physical and cognitive rest and not experienced any concussion symptoms for a minimum of 24 hours.
2. **Light Aerobic Activity:** Athlete may only exercise enough to increase their heart rate.
3. **Moderate Activity:** Athlete may exercise with limited body and head movement.
4. **Heavy, Non-Contact Activity:** Athlete may exercise more intensely, but still without contact.
5. **Practice and Full Contact:** Athlete may reintegrate in full contact practice.
6. **Competition:** Athlete may return to games.

If we implement these practices and set an example for others, we can greatly lessen the number of youth visiting emergency departments because of traumatic brain injury. For those who still experience injury, however, the Brain Injury Alliance of Montana (BIAMT) can help. The Brain Injury Help Line (BIHL) is a 24-month follow-up system of care offered by the BIAMT at no cost to your patient. They offer a large amount of resources to those in need. From helping with informing parents about brain injury to providing educational accommodations when they are returning to school, the BIHL strives to help those impacted by brain injury every day. For more information, please do not hesitate to contact them at (406) 541-6442 or check out the web site at www.biamt.org_brain_injury_alliance. Together we can make a difference for your patient.



Brain Injury Alliance
 M O N T A N A

www.biamt.org
 1280 S. 3rd St. West
 Suite 4
 Missoula, MT 59801

T: (406) 541-6442
 (800) 241-6442
 F: (406) 541-4360

According to the **Centers for Disease Control and Prevention (CDC)**, signs and symptoms of a traumatic brain injury may include all or some of the following:

COGNITIVE:

- Attention difficulties
- Concentration problems
- Memory complications
- Trouble with orientation
- Feeling slowed down

BEHAVIORAL:

- Irritability
- Depression
- Anxiety or nervousness
- More emotional
- Loss of initiative

PHYSICAL:

- Headaches
- Dizziness
- Fatigue
- Insomnia
- Difficulties with balance
- Nausea (early on)
- Fuzzy or blurry vision
- Sensitivity to noise or light
- Seizures
- Slurred speech



If a child will not stop crying, cannot be consoled, or will not eat, they need to go to an emergency department right away.

HEAD INJURY SCREENING TESTS APPROVED

Assess brain function after possible concussions (By Scott Roberts-(HealthDay News) – New computer software to assess the brain's function after a traumatic head injury has been approved by the U.S. Food and Drug Administration. The **Immediate Post-Concussion Assessment and Cognitive Testing (ImPACT) test** and a similar test for children are meant to be used by doctors to assess signs and symptoms of head injuries that could be concussions, the agency said Monday in a news release. **The software runs on laptop or desktop computers.**

Traumatic brain injuries account for more than 2 million trips to the emergency room in the United States each year, the FDA said. These injuries contribute to the deaths of some 50,000 people in the U.S. annually. The adult test is approved for people ages 12 to 59, and the pediatric test for children ages 5 to 11, the agency said. The tests' Pittsburgh manufacturer, ImPACT Applications, submitted more than 250 peer-reviewed articles in support of their approval, the FDA said.

NEWBORN SCREENING AWARENESS MONTH

CHILDREN'S SPECIAL HEALTH SERVICES

The goal of the Newborn Screening Program is to assure every baby born in Montana will receive three essential newborn screenings. Most babies are born healthy. Montana tests all babies because a few babies look healthy but have rare health conditions. It is very important that these conditions are detected right away.

Every year over 10,000 Montana newborns are screened prior to hospital discharge for genetic and metabolic conditions through the Montana Public Health Laboratory as part of a process called newborn screening. For babies who test positive for one of these conditions, rapid identification and treatment makes the difference between health and disability -- or even life and death. See the [Updated Montana recommendations for screening pre-term, low birth weight, and sick infants](#) and [Montana CSHS Pediatric Specialty Clinic Information](#)

SEPTEMBER IS NATIONAL DISASTER PREPAREDNESS MONTH

Pediatric Health Professionals Resources

- CDC's [Planning Resources by Setting](#) for clinicians, responders, communities and more
- American Academy of Pediatrics resources on [Disaster Preparedness to Meet Children's Needs](#)
- [Pediatric Preparedness Resource Kit](#)
- [Medscape commentary](#): Emergency Preparedness and Children with Special Needs
- New York City Pediatric Disaster Coalition's [Hospital Guidelines for Pediatric Preparedness](#)
- [CDC's Interim Immunization Recommendations for Individuals Displaced by a Disaster](#)

Training Resources

- [Just In Time Disaster Training](#) from the Disaster Resistant Communities Group
 - [Pandemic preparedness training](#) from the University of Kentucky Center on Trauma and Children
 - The National Center for Disaster Medicine and Public Health [offers training on caring for an unaccompanied child](#)
 - [Scheduled and on-demand emergency preparedness and response training](#) resources via CDC's (COCA)
 - [Webinar: Pediatric Preparedness for Healthcare Coalitions](#) presented by the DHHS
 - University of New Mexico Department of Emergency Medicine [http://emed.unm.edu/ resource](http://emed.unm.edu/resource)
- [Tracking and Reunification of Children in Disasters](#): A Lesson and Reference for Health Professionals

Learn More About...

- [Providing psychosocial support to children and families in the aftermath of disasters and crises](#)
- [Ensuring the health of children in disasters](#)
- [Medical countermeasures for children in public health emergencies, disasters, or terrorism](#)
- **FEMA Online Courses:**
 - [Planning for the needs of Children in Disasters](#) IS-366
 - [Multi-hazard Planning for Childcare](#) IS-36
 - [Introduction to the Incident Command System](#), I-100 for Schools IS-100.SCA
 - [Multi-hazard Emergency Planning for Schools](#) IS-362.A

National Preparedness Month

A preparedness emphasis for youth, older adults, and people with disabilities and others with access and functional needs continues with the theme “Don’t Wait, Communicate.” This initiative serves as a reminder that we must take action to prepare for the types of emergencies that could affect us where we live, work, learn, and play. Each week in September has a topic and action steps. The effort leads up to [National PrepareAthon! Day](#) on September 30.

Week 1: September 4–10, Multigenerational Preparedness

- Make a [family emergency communication plan](#).

Week 2: September 11–17, Community Service

- [Get involved in your community](#) and plan with neighbors.

Week 3: September 18–24, Individual Preparedness

- Take individual steps to prepare for a disaster, like [downloading the FEMA app](#).

Week 4: September 25-30, National PrepareAthon Day!- be counted and [register your preparedness actions](#). For more ways to get involved, go to www.ready.gov/September [disaster resources](#).

RESOURCES –

Read for Readiness

To help kids learn ways to be more prepared, FEMA’s [Student Tools for Emergency Planning \(STEP\) Program guide](#) includes books related to disasters and emergency planning.

1. *The Magic School Bus: Inside a Hurricane*, by Joanna Cole and Bruce Degen (ages 4–8)

A tropical storm catches the Magic School Bus inside the eye of its hurricane, providing first-hand information on changes taking place in air, sea, and land.

2. *Floods*, by Emma Durham and Mark Maslin (ages 9–12)

This book includes colorful diagrams and fact boxes that highlight famous disasters throughout history.

3. *No Dragons for Tea: Fire Safety for Kids (and Dragons)*, by Jean Pendziwol and Martine Gorbault (ages 3–8) This book provides a low-key approach to fire safety for kids.

4. *Rescue*, by Claire Watts (ages 9–12)

This reference book teaches children about emergency rescues including how to survive until help arrives.

5. *Tornadoes*, by Seymour Simon (ages 4–8) This book explains how tornadoes form, and what to do to protect yourself.

How to Discuss Disasters with Your Children

Children who get overexposed to disasters and violence in the news can experience lasting negative effects such as psychological damage and loss of a sense of security. Dr. Robin Gurwitch, a child psychologist at the Duke University Medical Center who serves on the National Advisory Committee on Children and Disasters, recommended that parents limit children’s exposure as much as possible. However, it’s important to start the conversation to help them better understand the situation. It’s important to let children know you are willing to talk about the event and encourage questions. The amount of details children should get depends on their age, and **no age group needs the grisly details**. [Listen to the full episode](#). For more information-[Trauma and Grief Network](#).

Keep Kids Safe from Mosquitoes

Mosquito bites can carry dangerous viruses like West Nile and Zika, so the CDC have developed a way to teach kids how to stay safe. [Mosquito Bites are Bad](#) shows kids ways to avoid getting bitten. The kid-friendly activity book gives tips for keeping pests out of the house by using simple strategies like closing doors. For more information visit www.cdc.gov/zika & mosquito tips for children, check out this [Sesame Street](#) video.

Social Media Promotes Disaster Preparedness and Response

Funded by the U.S. Department of Health and Human Services, Assistant Secretary for Preparedness and Response, the [National Center for Disaster Preparedness](#) (NCDP) at Columbia University now offers [free online training resources](#) focused on social media's role in emergency management. Resources include an [interactive online course](#), a comprehensive video series featuring social media gurus discussing [basic concepts](#) and [thought leadership](#), and a [literature review](#) of current research and tools. These resources will help you learn best practices for using Facebook, Twitter, LinkedIn, Pinterest, YouTube, Instagram, and other platforms to help with whole community response and resiliency. After completing the course, you earn a certificate of completion. To enroll in the online course, [click here](#).

[Subscribe to receive alerts during disasters in your state.](#)



PEDIATRIC-NEONATAL DISASTER REFERENCE GUIDE

One of the best resources available were developed by our colleagues and champions from Loma Linda and the strong work led by Karen Greeley RN NICU Disaster Coordinator. Here is the link to the guidance and documents which have this information available. (about 214 pages) but has a lot of adapted forms and tools.

(download) [resources http://cchealth.org/ems/pdf/Pediatric-Neonatal-Disaster-Reference-Guide.pdf%20resources%20%20resources](http://cchealth.org/ems/pdf/Pediatric-Neonatal-Disaster-Reference-Guide.pdf%20resources%20%20resources)

THIS IS WHY WE DO WHAT WE DO. <http://www.youtube.com/watch?v=xm9bGII7kh4>

PUBLIC-PRIVATE PARTNERSHIPS ARE ESSENTIAL!

Link up with organizations in your community during disaster planning and recovery 5.9.17

LOOKING FOR RESOURCES?

The **American Academy of Pediatrics** has resources for many groups taking care of children, filtered by disaster or audience type.

Videos and activities for kids and families:

- Sesame Street
- Computer games
- Flat Stanley activities

Tips for psychological first aid in schools:

- Helpful Hints for School Emergency Management
- National Children's Disaster Mental Health Concept of Operations (can be used by schools and communities to improve response to children's mental health needs¹³)

Visit **Save the Children's Get Ready. Get Safe** page to find checklists for parents and child care centers, and to see if your state is disaster-ready for children!

DID YOU KNOW?

During the first three years of life...

- 700 new neural connections are formed each second
- 42,000 new neural connections are formed each minute
- 2,500,000 new neural connections are formed each hour
- Every interactions is a brain-building moment(VROOM)



Child Ready Montana is a State Partnership Regionalization of Care Grant (SPROC) funded by the Federal Health Resource and Services Administration (HRSA). Montana is one of 3 states to be awarded this grant with the Montana Emergency Medical Services for Children (EMSC) Program.

The MT EMS for Children/Child Ready MT Program provided 91 Montana EMS, Rural Fire Departments, and QRUs essential pediatric equipment such as stethoscopes, blood pressure cuffs, airway management equipment, emergency ob/kits, and immobilization devices. Below are pictures of a few of the services.



Pediatric equipment was delivered to the East Helena Volunteer Fire Department (VFD). The Fire Chief of East Helena VFD stated "It's really going to help us provide patient care to our pediatric population, grant money like this really helps small departments like us who have very little funding," See story at

<http://www.dailydispatch.com/StateNews/MT/2016/July/15/East.Helena.Volunteer.Fire.Department.receives.federal.grant.for.pediatric.care.aspx>

Kassie Runsabove delivered pediatric equipment to the Northern Cheyenne EMS, Ashland EMS, and the Broadview EMS (not pictured.)



Northern Cheyenne EMS



Ashland EMS

HNB OUTREACH STIPEND APPLICATION

The *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD) is pleased to announce that outreach stipends are available for Tribes and organizations serving American Indian and Alaska Native communities to have customized materials with safe infant sleep messages printed by NICHD, utilizing the *Healthy Native Babies Project Toolkit Disk*. The Toolkit Disk allows individuals to design culturally appropriate and regionally specific materials with phrases translated into Native languages as well as photographs of Native families taken across the country. These outreach materials provide helpful hints to parents and caregivers about placing infants on their back to sleep and using other safe sleep practices.

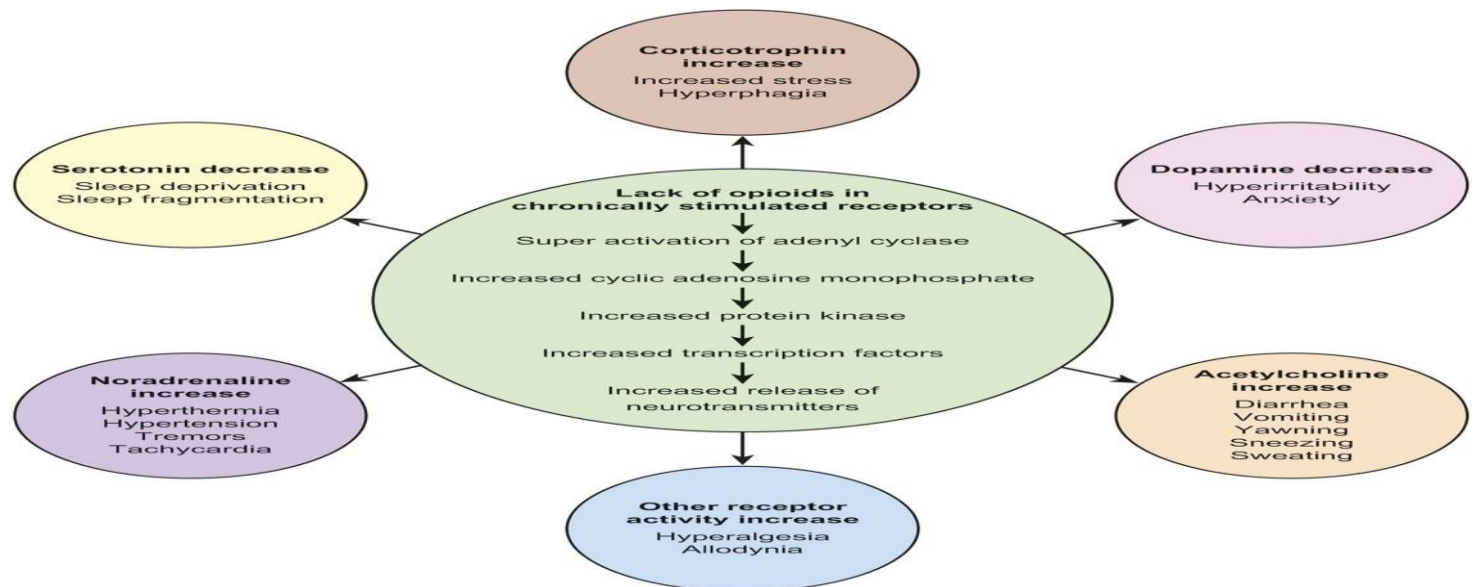
Please [CLICK HERE](#) for the outreach stipend application and more details about eligibility criteria. Decisions regarding awards will be made within 4 weeks of receiving your application. If you do not wish to apply for an outreach stipend, **you may still order national flyers and brochures, free of charge via the toll-free line 1-800-370-2943 or online at <http://safetosleep.nichd.nih.gov>**. We encourage you to take advantage of these free resources to spread the word about safe infant sleep!

NEONATAL ABSTINENCE SYNDROME (NAS)

The incidence of babies born in the United States with NAS quadrupled from 1999 to 2013, from 1.5 to 6.0 cases per 1,000 hospital births, according to the Centers for Disease Control and Prevention (CDC).

NAS is a group of problems that occur in a newborn who was exposed to addictive opiate drugs while in the mother's womb. Babies with NAS experience opioid withdrawal symptoms such as tremors, increased muscle tone, high-pitched crying and seizures, [the CDC researchers reported](#).

The CDC team said better addiction-prevention efforts "are needed to reduce inappropriate prescribing and dispensing of opioids" to curb this increase in what's medically known as "neonatal abstinence syndrome." Common opioids of abuse include prescription painkillers such as OxyContin, Vicodin, Percocet and fentanyl, as well as illicit opioids such as heroin.



MONTANA NAS DATA:

There were 432 newborn infants with NAS from 2000 to 2013. The rate of NAS in Montana newborns increased from 0.8 per 1,000 live births in 2000 to 9.0 per 1,000 in 2013, **A TENFOLD INCREASE**. There was a consistent increase from 2006 to 2012, and then a substantial upturn between 2012 and 2013. The American Academy of Pediatrics (AAP) revised NAS diagnostic guidelines in 2012; the revision may explain part of the large increase seen in 2013. <http://knowyourdosemt.org/wp-content/uploads/2015/03/Neonatal-Abstinence-Syndrome-in-Montana-Newborns-2000-2013.pdf>

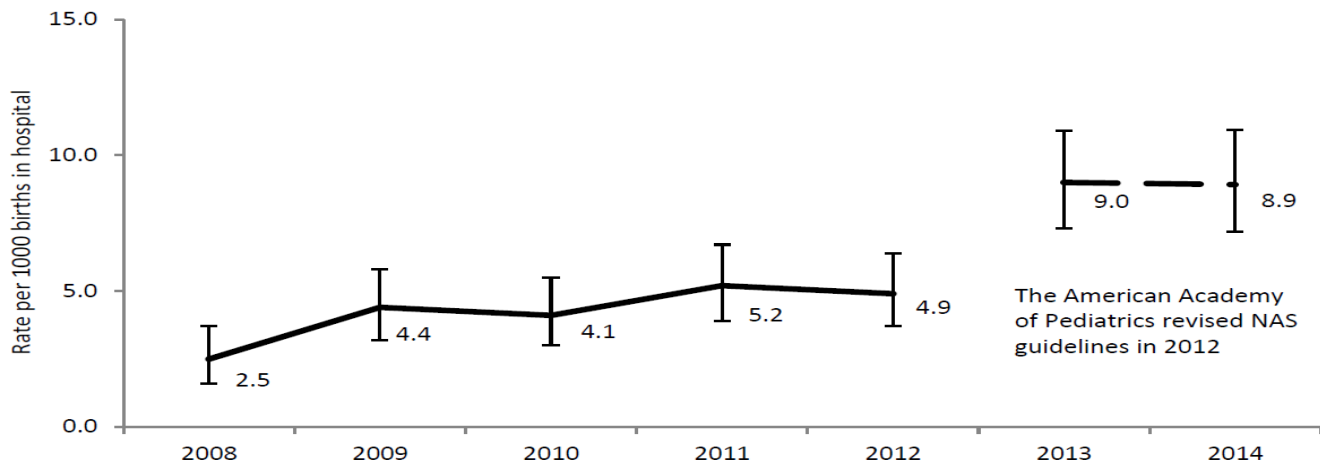
A state-level approach to NAS can address several levels of intervention, including:

- Surveillance for NAS-affected infants and the sources of maternal opiate use.
- Reimbursement for utilizing screening protocols to detect substance abuse early in pregnancy and withdrawal signs in newborns.
- Development of better measures to ensure follow-up with opioid-dependent women and receipt of comprehensive services.
- Collaborative efforts to strengthen clinical standards for identification, management, and follow-up with NAS-affected infants and their families. Prevention and intervention opportunities to avert or ameliorate the outcome of NAS can be considered along a continuum of care spanning time frames in the mother's life and that of her child.

The 2009 Substance Abuse and Mental Health Services Administration's (SAMHSA) report, "Substance-Exposed Infants: State Responses to the Problem," provides a five-point intervention framework to organize the prevention and intervention opportunities that can impact outcomes for opioid-dependent women and their children. The five time frames for intervention include:

1. Preconception period.
2. During pregnancy.
3. At birth.
4. Postpartum or neonatal/infancy period; and
5. Childhood and beyond. (<http://www.astho.org/prevention/nas-neonatal-abstinence-report/>)

**Incidence Rate of Neonatal Abstinence Syndrome
Live Births to Montana Resident Women in Hospital, 2008-2014**



Data on hospitalization charges: For 2009 - 2013, mean charges for newborns with NAS were \$34,000 versus \$6,800 for newborns without NAS. Mean length of stay for newborns with NAS was 12.1 days, almost four times the mean of 3.1 days for newborns without NAS. Twenty percent of newborns with NAS were of low birth weight (< 2500 grams) compared to 8.6% of newborns without NAS; and 26.1% of newborns with NAS were premature (< 39 weeks), compared to 13.2% of newborns without NAS. Low birth weight and prematurity both contribute to long hospital stays and increased costs even in the absence of NAS. Infants born with NAS also often have respiratory complications and feeding difficulties and may require intensive nursing care, and between 60% and 80% require pharmacologic management.

EVALUATION OF THE OPIOID EXPOSED NEWBORN

There have been a few scoring scales developed for newborns affected by NAS. The purpose of these scales is to allow a systematic, objective, periodic, and thorough evaluation of the newborn to determine the course of NAS and the need for pharmacologic therapy. It is important to note that these scales are designed for full term infants, as preterm neonates do not possess similar capacities for NAS expression. The three most commonly used tools include:

The Finnegan Neonatal Abstinence Scoring System

The 31 item scale is designed to quantify the severity of NAS and to guide treatment, and is administered every 4 hours. The individual NAS symptoms are weighted (numerically scoring 1–5) depending on the symptom, and the severity of the symptom expressed. Infants scoring an 8 or greater are recommended to receive pharmacologic therapy. The most comprehensive of scales, it is found to be too complex by many nurseries for routine use.

The Lipsitz Neonatal Drug-Withdrawal Scoring System

The 11 item scale, with each symptom numerically scored (0–3) based on severity of symptoms, designates a score of 4 as recommended for the institution of pharmacologic therapy. This scale has been recommended by the American Academy of Pediatrics. However, it provides only subjective ratings of gross individual symptoms expressed by affected infants; 4 items only list yes/no outcome responses.

The Ostrea tool is a 6 item simple ranking (rather than numeric) scale. Despite its relative ease of use, it does not allow for summing of multiple symptoms of NAS, and offers no guidelines for pharmacologic therapy, and is largely viewed as insufficiently comprehensive by treatment providers.

Other tools available are The Neonatal Withdrawal Inventory; An 8 point checklist of 7 NAS symptoms with a 4 point behavioral distress scale, with pharmacotherapy instituted after the first score of 8.

The Neonatal Narcotic Withdrawal Index-This scale consists of 6 signs of NAS plus an “other” category of 12 additional signs. Items are scored 0–2 points, and a score of ≥5 indicates pharmacotherapy.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2729086/ resources>

TRIVIA

Answer the trivia and win free Pediatric Blood pressure cuffs (infant and child size)-first 1 to email answers to Robin -rsuzor@mt.gov NOT to the listserve.

1. What are you doing for Pediatric Disaster preparedness?
2. What are two symptoms of NAS?
3. Name one of the educational resources listed in this newsletter.

[E-Cigarettes and Pregnancy](#) is a free, online interactive presentation on electronic nicotine delivery systems and their potential health effects during and after pregnancy and discusses effective tobacco cessation treatments. E-Cigarettes and Pregnancy is a new module for Smoking Cessation for Pregnancy and Beyond: A Virtual Clinic, an online training designed for health professionals to effectively assist women in quitting smoking. The training is eligible for free continuing education and Maintenance of Certification Part IV credit. [Learn more and view the training](#), and learn about [Tobacco Use and Pregnancy](#) from [CDC's Division of Reproductive Health](#).

REGISTRATION IS NOW OPEN!

The 2016 ROCKY MOUNTAIN RURAL TRAUMA SYMPOSIUM is scheduled for Sept. 15-16 at the Great Northern Hotel in Helena, MT. Online registration is now available at this link-:[register for the RMTS](http://www.45pr.com/2016%20Rural%20Trauma%20info.htm) <http://www.45pr.com/2016%20Rural%20Trauma%20info.htm>.

There will be a "Register Now" link posted on the page. You may also register by mail. Please let Tricia Bailey know if you have any questions or difficulties with registration. Her contact information is: Tricia Bailey, RMRTS Conference Coordinator, 45th Parallel Events Office: 406-585-9538 or Cell: 406-580-5514 or Fax: 406-994-0046. Website location: [Conference](http://www.45pr.com/) <http://www.45pr.com/>

PIG Lab: Pediatric Procedures Practice & Playtime was developed by Pedi-Ed-Trics Emergency Medical Solutions, to help reinforce the essentials of pediatric emergency care. Attendees will be a part of a highly interactive pediatric medical and traumatic emergencies review. It's time to get messy and work with harvested pig hearts, lungs and tracheas. The hands-on portions of the class will enable students to better understand pediatric emergency/critical care anatomy and procedures... seeing things from the inside out! **The Pig Lab is on September 14th.**

Credits are available for: Nurses, paramedics, EMTs, and respiratory therapists. (Physicians are welcome to attend, but CMEs are not available) Certificates will be distributed with **3.0 contact hours** at the end of the seminar. A \$150 value!



Critical Access Hospital staff have the priority until September 6th.

For more information and to register for the free pig lab- [Pig Lab Registration](#).



EMERGENCY MEDICAL SERVICES FOR CHILDREN PROGRAM, MT DEPARTMENT OF PUBLIC HEALTH AND HUMAN SERVICES, EMERGENCY MEDICAL SERVICES AND TRAUMA SYSTEMS, P.O. BOX 202951, HELENA, MT 59620 -- CONTACT INFORMATION: rsuzor@mt.gov or (406) 444-0901

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